UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/574,327	05/19/2000	Albert Tung-chu Man	0100.0000710	8261

24228 7590 11/26/2002

MARKISON & RECKAMP, PC
PO BOX 06229
WACKER DR
CHICAGO, IL 60606-0229

EXAMINER
ALPHONSE, FRITZ

ART UNIT	PAPER NUMBER
2675	6

DATE MAILED: 11/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/574,327	Applicant(s) Man et al.
	Examiner Fritz Alphonse	Art Unit 2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *May 19, 2000*.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-6 and 8-24* is/are rejected.

7) ☒ Claim(s) *7* is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-6, 8-9, 11-17, 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perez (U.S. Pat. No. 6,323,828) in view of IBM (TDB-ACC-NO: NB8910257).

As to claim 1, Perez teaches about a method of testing graphics data, the method comprising the steps of : providing graphics data of a predetermined type having an expected characteristic (col. 3, lines 40-43) to a graphics output port of a graphics system (col. 3, lines 44-44); receiving a representation of the graphics data from the graphics output port (Perez teaches about unit 100 that receives graphics at 220; see figure 2); calculating a calculated characteristic based upon the representation of the graphics data (col. 4, lines 26-68); and providing the calculated characteristic to a serial interface of the graphics system (col. 5, lines 20-23).

Perez does not explicitly teach about testing digital graphics data.

However, in the same field of endeavor, IBM (TDB-ACC-NO: NB8910257) discloses an automated video test card which allows accurate testing of digital and analog video signals.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Perez by specifically providing a system which allows accurate testing

of digital and analog graphics data, as disclosed by IBM. Doing so would provide a very simple and reliable system which has the capability for testing both analog and digital graphics data.

As to claim 2, Perez discloses a method, wherein the expected characteristic is a calculated value based upon the predetermined type of graphics data (col. 3, lines 40-43).

As to claim 3, Perez discloses a method, wherein the predetermined type of graphics data includes at least one of a red, green, and blue color component (col. 4, lines 28-35).

As to claim 4, Perez discloses a method, wherein the predetermined type of graphics data includes a horizontal synchronization component (col. 4, line 58).

As to claim 5, Perez discloses a method, wherein the predetermined type of graphics data includes at least one of a red, green, and blue color component (col. 4, lines 28-35)..

As to claim 6, Perez discloses a method, wherein the predetermined type of digital graphics data includes a graphics vertical synchronization component (col. 4, line 51).

As to claim 8, Perez discloses a method, wherein the predetermined type of graphics data is selectable (col. 3, lines 20-22).

As to claim 9, Perez does not teach about receiving the representation of graphics data at a real-time graphics rate; and calculating and providing are performed in real time with respect to the step of receiving.

However, this is very obvious, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add in the testing method a step which receives graphics

data at a real-time graphics rate. By doing so, the test apparatus would provide an accurate cycle time and would perform an analysis on the graphics data with high accuracy.

As to claims 11, 13 and 15, Perez discloses a method, wherein the serial interface is an I2C-type serial interface, and wherein the serial interface is associated with the graphics output port (col. 4, lines 10-20; see figure 2).

As to claims 12 and 16, Perez does not teach about a method wherein the graphics output port includes an output port for a flat panel display.

However, the use of graphics output port including an output port for a flat panel display is obvious and very well known in the art.

As to claim 14, the claim has substantially the limitations of claim 1, therefore, it is analyzed as previously discussed in claim 1 above.

As to claim 17, the claim has substantially the limitations of claim 9, therefore, it is analyzed as previously discussed in claim 9 above.

As to claim 19, Perez (figs. 1-2) show an apparatus for testing graphics data, the system comprising: a connector to interface to a digital graphics protocol; a graphics data analyzer module having an input coupled to the connector, and an output; and a serial bus interface control module having an input coupled to the output of the graphics data analyzer module, and a serial data port coupled to the connector (col. 1, lines 48-61; col.2, lines 54-67).

Perez does not explicitly teach about an apparatus for testing digital graphics data. However, this limitation is disclosed by IBM (TDB-ACC-NO: NB8910257). See the motivation above.

As to claims 20-22, the claims have substantially the limitations of claims 12 and 15, therefore, they are analyzed as previously discussed in claims 12 and 15 above.

As to claim 23, Perez (fig. 1-2) shows a method of testing graphics data, the method comprising: monitoring a serial data node of a graphics interface to receive a first test indicator from a graphics controller (col. 3, lines 40-43); monitoring a graphics data node to receive a first graphics data from the graphics controller (col. 3, lines 44-45); determining a first test result based upon the first test indicator and the first graphics data in response to receiving a first test indicator and the first graphics data (col.3, line 46; col. 6, lines 48-54); and sending the first graphics data to the serial data node in response to determining the first test result (col. 2, lines 5-8).

Perez does not explicitly teach about testing digital graphics data. However, this limitation is disclosed by IBM (TDB-ACC-NO: NB8910257). See the motivation above.

As to claim 23, the claim has substantially the limitations of claim 1, therefore, it is analyzed as previously discussed in claim 1 above.

As to claim 24, the claim differs from claim 23 by the additional limitations "second test indicator, and second test result". However, these limitations are disclosed by Perez. See column 4, lines 51-67.

3. Claims 10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perez in view of IBM as applied to claim 1 above, and further in view of DDWG (DVI 09/662,837).

As to claims 10 and 18, Perez does not teach about a method, wherein the step of receiving includes receiving the representation of graphics data at a rate greater than 100 MHZ. However, this limitation is obvious an very well known in the art. See DDWG (page 11, section 2.2.2. line 1-7).

Allowable Subject Matter

4. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Knierim (U.S. Pat. No. 4,780,755) discloses a frame buffer self-test.

Hung (U.S. Pat. No. 4,894,718) discloses a method and system for testing video.

Miller (U.S. Pat. No. 5,345,263) discloses a computer color monitor testing method.

Thacker (U.S. Pat. No. 5,835,1134) discloses a calibration and merging unit for video adapters.

Chuang et al. (U.S. Pat. No. 5,943,092) discloses a digital control cathode ray tube test system.

Chang et al. (U.S. Pat. No. 6,219,039) discloses a compact PC video subsystem tester.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz Alphonse whose telephone number is (703) 308-8534.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Saras, can be reached at (703) 305-9720.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

F. Alphonse

Art Unit: 2675

November 13, 2002

STEVEN SARAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600